

ABSTRACT OF THE DISCLOSURE

Disclosed is an interface apparatus in a communication network for converting a frame, which has been received from a digital transmission line and has overhead and a payload, to ATM cells, assembling a frame using ATM cells that have been received from an ATM network, and sending the assembled frame to a digital transmission line. The apparatus includes cell conversion zone specifying means for defining, as a cell conversion zone, the smallest possible portion of a frame that contains the overhead data and payload, and generating a signal that specifies the cell conversion zone; pointer creation means for creating a pointer which specifies a predetermined position of the cell conversion zone as a reference position; and cell conversion means for converting data in the cell conversion zone into cells based upon the signal that specifies the cell conversion zone, and for inserting this pointer, which indicates the reference position of the cell conversion zone, in a prescribed cell. On the ATM-cell receiving side, the apparatus detects pointers, assembles ATM cells into a frame based upon the pointers and transmits the frame.